

SECTION III.—FORECASTS.

STORMS AND WARNINGS FOR APRIL, 1915.

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[Dated: Weather Bureau, Washington, D. C., May 13, 1915.]

On the 1st of the month a low of considerable proportions was over the Grand Banks and a high-pressure area of great magnitude central over Manitoba dominated weather conditions over almost the entire country, frosts being reported in the East Gulf and South Atlantic States, warnings for which had been previously disseminated. A high center broke away from the main high over Manitoba and passed eastward off the Jersey coast.

On the evening of the 1st the following special forecast was issued:

The prominent features of the weather map on Thursday were a general increase in pressure over the north Atlantic Ocean and a decrease in pressure over the western Canadian Provinces. This is the first time since the middle of March that the pressure has assumed this distribution, and it logically follows that the prolonged period of cool weather that has been general east of the Rocky Mountains during the past two weeks will be succeeded by a period of temperatures above the seasonal average over the eastern half of the country beginning the early part of the coming week.

On the morning of the 2d a low was central off the southwestern coast of Florida and advices were issued to Florida coast stations. During the afternoon advices were issued to South Atlantic ports and in the evening extended northward to Cape Cod. On the 3d the storm was near Hatteras, with lowest reported barometer 29.10 at Manteo, N. C. Storm warnings were extended to Eastport and heavy snow warnings issued for portions of coast States from Maryland northward. The storm passed northeastward up the coast and on the 5th was over the Grand Banks. Precipitation was confined to sections near the coast, and heavy gales were reported, with some damage to shipping.

A portion of the high that was over Manitoba on the 1st passed southward to the West Gulf coast and thence eastward across the Gulf States causing frosts in the Gulf and South Atlantic States, warnings of which were previously issued.

In the trough of a low-pressure area that appeared over Alberta on the 2d, a secondary developed over the northern Plains States on the 4th which passed eastward and northeastward. The showers attending this disturbance were confined to the Lake Region, the Ohio Valley and North Atlantic States.

It was followed by a high-pressure area which was an offshoot from the Pacific Ocean high area. It was central on the 4th over the north Pacific coast and passed thence eastward to the northern Plains States by the 6th and thence across the Lake Region to the Atlantic coast districts by the 9th. In connection with this, high frosts occurred in Idaho and the North Pacific States all of which were covered by the necessary warnings.

After the passage of this high-pressure area a low center appeared over Nevada on the evening of the 4th and passed slowly eastward to the Texas Panhandle by the 7th; recurving, it passed thence northward to western Ontario, where it seemingly joined with another low area

that was over Alberta on the evening of the 7th. In this position it remained practically stationary for about 24 hours while in its trough a secondary developed over northern Lake Michigan. The latter moved eastward out the St. Lawrence Valley. Showers and thunderstorms were quite general over the southern Rocky Mountain region, the Plains States, and thence eastward.

A high-pressure area showed on the south Pacific coast on the 7th and passed northward to eastern Washington by the 9th. It moved to the northern Rocky Mountain region, where it persisted until the 11th, when it was reinforced by a high area from Saskatchewan. This high passed slowly eastward to the Lake Region by the 14th, and during the following 24 hours seemed to divide, one portion passing eastward over the Atlantic, while the other settled southward and southwestward to the West Gulf States by the evening of the 16th.

On the morning of the 13th there were indications of a disturbance over the eastern Bahamas, pressure at Turks Island having fallen 0.14 inch in 24 hours to a reading of 29.94 inches. During the next day a further fall of 0.15 inch took place. Pressure remained practically stationary during the next two days at Turks Island. On the morning of the 16th, however, the wind at Turks Island had backed to west from northeast and during the subsequent 24 hours pressure rose 0.11 inch, while at Bermuda a fall of 0.41 inch was reported. The lowest pressure reported at Bermuda was 29.52 on the evening of the 17th. The storm evidently passed near Bermuda on a northerly course, being in all likelihood the same storm that showed off the Nova Scotia coast on the 19th. Advices were issued to Atlantic coast ports on the 14th and again on the 17th, to the effect that the storm would pass northward off the coast.

Another high-pressure area appeared off the middle Pacific coast on the 13th and passed northward up the coast and on the 15th a high center was over Alberta. During the succeeding two days it progressed to the Upper Lake Region and during the next three days passed to Florida, where it remained until the 21st. Frost warnings were issued on the 12th and 13th for the Ohio Valley and on the 14th for portions of the Middle Atlantic States and frosts occurred generally as indicated in the warning advices.

A low-pressure area passed rapidly from western Ontario on the 19th to the Canadian Maritime Provinces on the 20th, attended by little, if any, precipitation.

The high area following first made its appearance over Alberta on the 19th and passed eastward to the north Atlantic coast with greatly increased intensity by the 22d. It then settled slowly southward over the south Atlantic States, where it persisted until the 23d.

A low-pressure area that developed over the southern Rocky Mountain region passed slowly northward during the 22d and 23d to the northern Plains States, where it lost its identity. Showers occurred over the Plains and west Gulf States.

On the 21st frosts occurred in Washington and Oregon, warnings having been previously issued.

Another low appeared over Nevada on the 23d, and after passing southeastward to the Mexican border ad-

vanced north-northeastward, seemingly joining a storm that was over Alberta on the 26th. The weather chart showed a single center over western Ontario on the 28th, which by the following morning was over eastern Ontario and pressure had fallen over Atlantic coast districts. Barometric pressure remained much below normal over the latter districts until the end of the month. This disturbance caused showers over much of the country from the Plains and west Gulf States eastward to the Atlantic coast. On the 28th warnings of high winds were issued for Lake Superior and winds of gale force occurred during the succeeding 24 hours.

A high-pressure area from the north Pacific coast advanced slowly eastward, and at the end of the month was over Manitoba.

Following the passage of this high through the north Pacific States and northern Rocky Mountain region, pressure became low over the latter district, and at the end of the month a low center was over northwestern Colorado with a pressure reading of 29.24 inches at its center.

On the 29th orchardists in the Portland, Oreg., forecast district were advised that "unusually low temperatures will prevail in the early morning," and this warning was repeated on the 30th. Low temperatures occurred in eastern Washington, eastern Oregon, and southwestern Idaho on the 30th, and on May 1 over eastern Washington, eastern Oregon, and Idaho.

RESUMPTION OF THE WEEKLY FORECAST.

The following announcement was published in the National Weather and Crop Bulletin of April 12:

The outbreak of European hostilities cut off the receipt by the Weather Bureau of many important meteorological observations from northern Europe and other foreign points and on this account the weekly forecasts were suspended in October, 1914. However, in recognition of the great importance to agriculture and related activities of general information concerning forthcoming weather conditions, based on legitimate and reliable meteorological observations, the Weather Bureau is led to resume these forecasts, which will be based on such Northern Hemisphere reports as remain available, for publication in the National Weather and Crop Bulletin and elsewhere. In resuming this work the United States has been divided into nine relatively large districts, for which the weekly forecasts will be issued and the boundaries and extent of which are indicated on the map below. (See fig. 1.)

In addition to the distribution of this information in the bulletin and through the medium of the daily press, forecasts for particular sections will be sent to section centers for distribution through the medium of the local publications of the station and the weekly press.

The following forecast, issued for the week beginning Wednesday, April 14, 1915, indicates the character and scope of these forecasts:

North Atlantic States.—Generally fair weather will continue until the 18th to 20th, when the weather will become unsettled, with probably local showers. The temperature will be low during the 14th to 16th, followed by a marked change to higher temperatures the latter half of the week.

Middle Atlantic States.—The weather will be fair until near the close of the week, when there will be a short period of unsettled weather and showers. The first half of the week will be cool with probably frosts; the latter half of the week will be much warmer.

South Atlantic and East Gulf States.—The week will be one of generally fair weather, with temperature near the seasonal average.

West Gulf States.—Except for local showers and thunderstorms between the 16th and 18th, the week will be one of generally fair weather, with temperatures averaging above the seasonal normal.

Ohio Valley and Tennessee.—Fair weather will prevail until the 17th–19th, when there will be local showers and thunderstorms, followed by a return of fair weather on the 20th. Temperature will rise decidedly the first half of the week and will remain relatively high thereafter until the close of the week.

Region of the Great Lakes.—Fair weather will prevail during the next three or four days; the latter half of the week will be unsettled, with local rains. The temperature will rise decidedly from the 14th to 16th and remain above the seasonal average the latter half of the week.

Plains States and Upper Mississippi Valley.—Generally fair weather, with temperatures above the seasonal average, will prevail until the 17th–18th, when there will be local showers and thunderstorms, to be followed by fair and cooler weather the latter part of the week.

Rocky Mountain and Plateau Regions.—Local showers the beginning of the week will be followed by several days of fair weather, with temperatures near or slightly below the seasonal average.

Pacific States.—The week will be one of generally fair weather, with temperatures below the normal. Showers are probable the latter half of the week in Washington and Oregon.

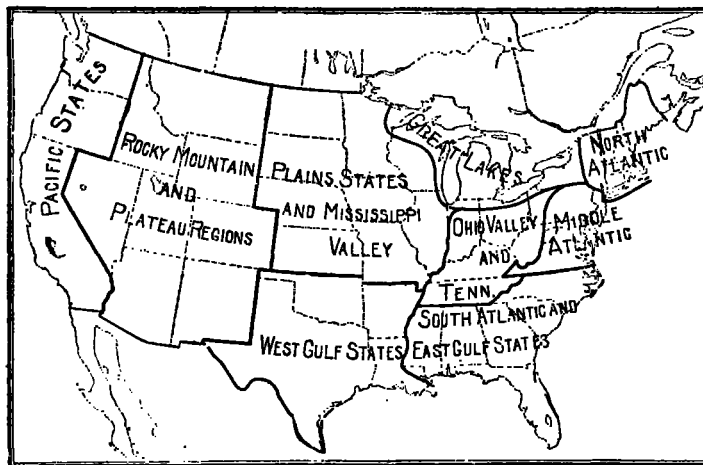


FIG. 1.—Districts for which weekly forecasts are published by the U. S. Weather Bureau.

NORTHERN HEMISPHERE PRESSURE.

Alaska.—Pressure was generally low for the month, particularly so over the northern portion, where it averaged 0.20 inch or more. Lows occurred about April 2, 6, 11–12, 13–14, 16, 21, 23, and 25–26; and highs about April 9, 19, and on the last of the month.

Honolulu.—Pressure averaged below normal, there being only three days during the month when it was above. Lows occurred on the 1st, 4th, 9th, 19th–22d, and 28th–29th. No highs of importance occurred.

Azores.—Pressure was decidedly above the average for the season, continuously high pressure prevailing up to the 25th, followed by pressure decidedly below normal during the remainder of the month. Although the pressure was decidedly above normal for the first 24 days of the month, no important crests occurred. The lowest pressure occurred during the 28th–29th.